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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/533,732	05/04/2005	Masatomi Sato	U 015758-0	7971
140	7590	10/09/2007	EXAMINER	
LADAS & PARRY			HOOK, JAMES F	
26 WEST 61ST STREET			ART UNIT	
NEW YORK, NY 10023			PAPER NUMBER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/533,732

Applicant(s)

SATO, MASATOMI

Examiner

James F. Hook

Art Unit

3754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4 and 7-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4 and 7-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(e).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (FTO/SB/118)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka in view of Venkataswamy and Ohmae (159). The patent to Tanaka discloses the recited laminated resin tube comprising a plurality of resin layers wherein at least one of the plurality of layers is formed of a composite material which inherently would have impact resistance made up of polyamide mixed with a polyolefin elastomer, where the thickness of the layer is considered to be merely a choice of mechanical expedients where it is the outermost layer to an inner layer of resin such as polyamide, at least the innermost layer is a low permeability layer, and the method of forming a tube from this make up is also disclosed. The patent to Tanaka discloses all of the recited structure with the exception of disclosing what type of polyamide is combined with the thermoplastic elastomer and in what amounts, and forming such into pellets. The patent to Venkataswamy discloses that it is old and well known in the art to combine a polyamide or nylon such as polyamide 11 with a olefin elastomer in ranges which overlap those claimed in claims 1, 5, and 6. It would have been obvious to one skilled in the art to modify the composite material in Tanaka by using a specific type of polyamide such as polyamide 11, and using specific amounts combined with the olefin

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elastomer to arrive at the composite material as such are known materials and amounts used to form composite layers used in equivalent composite mixtures as suggested by Venkataswamy, where such is equivalent materials and Tanaka is silent on specific amounts and types of nylon used, where such would provide a useable compound material of specific properties to meet the needs of the user and increase the usefulness of the tube in Tanaka. The patent to Ohmae discloses that it is old and well known in the art to form the composite materials by creating pellets of the material before such is formed into it's final shape, especially when forming composites of polyamide and olefin elastomers. It would have been obvious to one skilled in the art to modify the material in Tanaka to be formed into pellets prior to forming into the final tube structure as suggested by Ohmae where such is a known method of preparing materials for production of hoses and would allow for a better combination of materials.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka in view of Venkataswamy and Ohmae (159) as applied to claims 1, 3, and 7-9 above, and further in view of Kito. The patent to Tanaka as modified discloses all of the recited structure with the exception of forming the inner layer of a pair of layers of PPS where the innermost is loaded with a conductive material. The patent to Kito discloses the recited laminated resin tube where the inner layer can be formed of a plurality of layers including the use of various materials such as polyamides and PPS for the inner layers, where the innermost layer can be provided with carbon black to make it conductive to dissipate charge. It would have been obvious to one skilled in the art to modify the inner layer of Tanaka as modified to be made of a plurality of layers, and to substitute

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PPS for the polyamide used to form the inner layer, and to provide the innermost layer with conductive material to make it conductive as suggested by Kito where such would provide a hose having a more resistant inner core layer that is resistant to different materials as would be required by the user to meet his/her needs depending upon the environment in which the tube was to be used, and to make the innermost layer conductive to dissipate charge and avoid failure due to materials catching fire as charge builds up in the interior of the tube thereby saving money in replacement costs and damages.

Claims 1, 3, and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka in view of Venkataswamy, Ohmae (159), and Ito (085). The patent to Tanaka discloses the recited laminated resin tube comprising a plurality of resin layers wherein at least one of the plurality of layers is formed of a composite material which inherently would have impact resistance made up of polyamide mixed with a polyolefin elastomer, where it is the outermost layer to an inner layer of resin such as polyamide, at least the innermost layer is a low permeability layer, and the method of forming a tube from this make up is also disclosed. The patent to Tanaka discloses all of the recited structure with the exception of disclosing what type of polyamide is combined with the thermoplastic elastomer and in what amounts, forming the material into pellet form, and the thicknesses of the outermost layer. The patent to Venkataswamy discloses that it is old and well known in the art to combine a polyamide or nylon such as polyamide 11 with a olefin elastomer in ranges which overlap those claimed in claims 1, 5, and 6. It would have been obvious to one skilled in the art to

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modify the composite material in Tanaka by using a specific type of polyamide such as polyamide 11, and using specific amounts combined with the olefin elastomer to arrive at the composite material as such are known materials and amounts used to form composite layers used in equivalent composite mixtures as suggested by Venkataswamy, where such is equivalent materials and Tanaka is silent on specific amounts and types of nylon used, where such would provide a useable compound material of specific properties to meet the needs of the user and increase the usefulness of the tube in Tanaka. The reference to Ito discloses that it is old and well known to make outermost layers of elastomeric polyamides which are known in the art to be polyamide blends with elastomeric materials similar to that set forth in Tanaka, and that such outermost protective layers can be sized to a thickness of 0.5-1mm; thereby teaching thicknesses of the outermost layers of a polyamide blend is known in the art. It would have been obvious to one skilled in the art to modify the outermost layer of Tanaka to be of any thickness known in the art including a range of 0.7-0.9mm as such is known in the art to form the outermost layer of these thicknesses and that such is a known thickness that allows for flexibility as well as protection as suggested by Ito, where such would improve flexibility and reduce costs, and such is a known thickness used in the art. The patent to Ohmae discloses that it is old and well known in the art to form the composite materials by creating pellets of the material before such is formed into it's final shape, especially when forming composites of polyamide and olefin elastomers. It would have been obvious to one skilled in the art to modify the material in Tanaka to be formed into pellets prior to forming into the final tube structure as

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suggested by Ohmae where such is a known method of preparing materials for production of hoses and would allow for a better combination of materials.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka in view of Venkataswamy, Ohmae (159) and Ito as applied to claims 1, 3, and 7-9 above, and further in view of Kito. The patent to Tanaka as modified discloses all of the recited structure with the exception of forming the inner layer of a pair of layers of PPS where the innermost is loaded with a conductive material. The patent to Kito discloses the recited laminated resin tube where the inner layer can be formed of a plurality of layers including the use of various materials such as polyamides and PPS for the inner layers, where the innermost layer can be provided with carbon black to make it conductive to dissipate charge. It would have been obvious to one skilled in the art to modify the inner layer of Tanaka as modified to be made of a plurality of layers, and to substitute PPS for the polyamide used to form the inner layer, and to provide the innermost layer with conductive material to make it conductive as suggested by Kito where such would provide a hose having a more resistant inner core layer that is resistant to different materials as would be required by the user to meet his/her needs depending upon the environment in which the tube was to be used, and to make the innermost layer conductive to dissipate charge and avoid failure due to materials catching fire as charge builds up in the interior of the tube thereby saving money in replacement costs and damages.

Response to Arguments

Applicant's arguments with respect to claims 1, 3, 4, and 7-9 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references to Moriya, Matsumoto (595 and 185), Mashita, Ohmae (136), Ozawa, and Yoshida disclosing state of the art tubes and plastic material.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

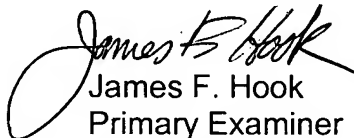
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to James F. Hook whose telephone number is (571) 272-4903. The examiner can normally be reached on Monday to Wednesday, work at home Thursdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on (571) 272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


James F. Hook
Primary Examiner
Art Unit 3754

JFH